

# How to optimise exercise behaviour in axial spondyloarthritis

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#### THU0742-HPR HOW TO OPTIMISE EXERCISE BEHAVIOUR IN AXIAL SPONDYLOARTHRITIS: RESULTS OF AN INTERVENTION MAPPING STUDY

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**Background:** Regular exercise has many health benefits for people with axial spondyloarthritis (axSpA).<sup>1</sup> However, most patients do not engage in frequent exercise.<sup>2</sup> In order to improve exercise behaviour of axSpA patients, a well-founded intervention is needed.

**Objectives:** To identify effective intervention methods to optimise exercise behaviour in axSpA.

**Methods:** The first three steps of the Intervention Mapping (IM) protocol, which is a six-step framework for intervention development, were used to determine effective intervention components. This study comprised 1) a needs assessment, to examine the discrepancy between current and desired exercise behaviour of axSpA patients, 2) a determinant analysis, to identify barriers and facilitators (determinants) to overcome this discrepancy, and 3) an intervention method analysis, to select effective methods that target these determinants. All three steps included literature reviews: PubMed and Web of Science were systematically searched for articles up to August 2017 using a well-defined search strategy. Additionally, semi-structured interviews with axSpA patients (n=2) and physiotherapists specialised in axSpA (n=2) explored the literature search findings of IM steps 1 to 3 qualitatively and ranked the determinants and methods identified in steps 2 and 3 in order of relevance.

**Results:** The literature searches resulted in 28 (64), 23 (257) and 15 (209) included articles (hits) for IM steps 1, 2 and 3, respectively. IM step 1 revealed that only one third of axSpA patients engage in (frequent) mobility, strengthening and/or cardiorespiratory exercises, while especially these components appear beneficial in axSpA. IM step 2 showed that the determinants self-efficacy, attitude, skills, therapists' skills, knowledge, intentions, planning and exercise group support positively influence exercise behaviour in axSpA (ordered by relevance). IM step 3 identified effective methods to stimulate exercise behaviour in axSpA by targeting aforementioned determinants: guided practice, action planning, goal setting, education (on disease, coping, exercise and available resources), feedback, tailoring, motivational interviewing, monitoring, therapists' education and encouragement of exercising in a group (ordered by relevance).

**Conclusions:** This study showed that in order to optimise exercise behaviour in axSpA, patients should be offered an intervention including education, motivational interviewing, goal setting and action planning and they should be stimulated to exercise in a group. In addition, therapists should be educated how to tailor, practice and monitor exercise and how to base this on thorough assessment.

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#### THU0743-HPR SUPPORTED SELF-MANAGEMENT INTERVENTIONS FOR FAMILIES AND CHILDREN AGED 4 TO 11 YEARS OLD LIVING WITH ARTHRITIS, ASTHMA AND TYPE ONE DIABETES: AN INTEGRATIVE REVIEW

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**Background:** The Shared Management Model implies that as children with chronic conditions like rheumatic and musculoskeletal diseases (RMDs) mature, they should increasingly take on responsibility for self-managing their health, in partnership with those involved in their care and education.<sup>1</sup> An initial search of the literature suggested that there was a reduced emphasis on the supported self-management of chronic conditions like RMDs in children aged 4 to 11 years, inspiring a more rigorous and systematic search of the empirical literature.

**Objectives:** The aim of this integrative review were to understand the evidence base regarding supported self-management of chronic conditions by children and their families, including interventions that promote supported self-management skills development.

**Methods:** Studies published since 2012 were identified through a search of eight bibliographic databases. Given the extensive nature of chronic conditions in children, the review focused on three groups of chronic conditions sharing similar self-management characteristics: asthma, RMDs, and type one diabetes mellitus (T1DM). The methodological quality of quantitative studies was assessed using the Cochrane Risk of Bias scale. Non-randomised studies were assessed using the Methodological Index for Non-randomised Studies (MINORS) instrument. Review articles and qualitative studies were assessed using Critical Appraisal Skills Programme (CASP) Systematic Review Checklist and CASP Qualitative Checklist, respectively.

**Results:** The review identified 29 relevant articles, reporting on 22 primary research studies and three review articles. Study participants were children with asthma (n=17) and T1DM (n=4). No studies were identified for children with RMDs. Seventeen studies reported an underlying theoretical basis, the most common of which was social cognitive theory. Interventions promoting supported self-management skills appeared to be effective in improving a range of self-reported and clinical outcomes, including health status, health knowledge, and self-efficacy. However, there was limited evidence of the effect of interventions on the psychosocial wellbeing of children. It also became clear that education-based interventions alone are insufficient in improving self- and shared-management skills. In addition, most studies failed to contextualise chronic conditions in children and their families, who shift between interacting with interventions and living their everyday lives over time.

**Conclusions:** Given the complexity of childhood chronic conditions and intervention components and contents, further investigation is required to specify the mechanisms by which supported self-management interventions operate. Most studies were also aimed at parents and carers, and appeared to neglect the importance of including and engaging children in decisions involving their healthcare. Finally, the review clearly highlighted the need for research on the supported self-management of RMDs in children, since no evidence-based interventions were identified for these individuals.

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#### THU0744-HPR EFFECTIVENESS OF PROFIBRO MOBILE APP ON QUALITY OF LIFE, SYMPTOMS AND SELF-CARE AGENCY IN PATIENTS WITH FIBROMYALGIA: A RANDOMISED, SINGLE-BLIND TRIAL

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**Background:** ProFibro is the first free mobile Android application in Brazilian Portuguese for fibromyalgia (FM). It was developed as a complementary Mobile Health resource in FM management for the promotion of self-care. Its main functions are educational animation, self-monitoring, sleep strategies, scheduling, exercise, hints through notifications, practice of gratitude with a diary and family adjustments.

**Objectives:** to assess the effectiveness of ProFibro in the improvement of health-related quality of life, symptoms and self-care agency of patients with FM.

**Methods:** Forty subjects with FM, aged 19–59 years, were randomised into ProFibro and a control group. ProFibro group received a smartphone with the mobile app and subjects were instructed to use it for 6 weeks, while control group